

Wireless NO Sensor

Wireless Sensor Network Based on LoRa Technology

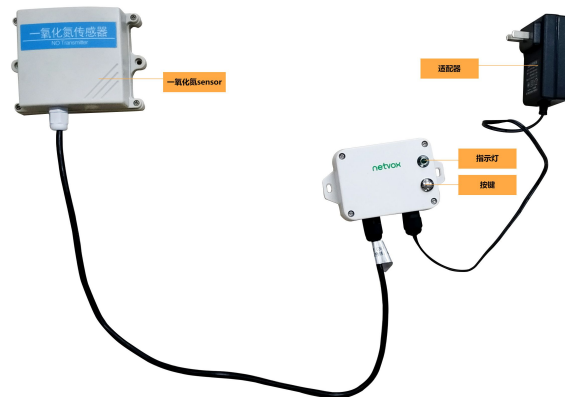


Figure 1 R718 PA2 Appearance (subject to the actual object)

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Dataprodukter utöver det vanliga

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History

Version	Date	Note
0.1	2019-06-12	Initial Release

Notes:

Hardware Version
61R718p6801V0.2

Overview

The R718PA2 is a wireless communication device that detects the NO content in ambient air. R718PA2 can detect the concentration of NO in the air. The main unit and NO sensor are connected via RS485 interface, and the detected data is transmitted to other devices through the wireless network. It adopts the wireless communication method conforming to the LoRa™ protocol standard.

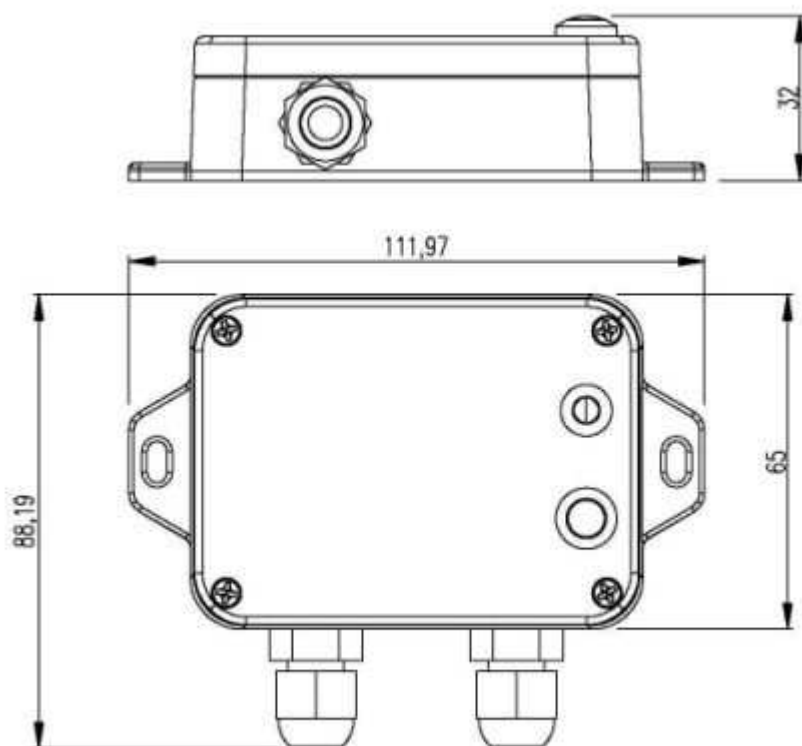
Main characteristics

- Adopt SX1276 wireless communication module
- DC 12V adapter power supply
- Main Unit protection class IP65
- The base is equipped with a magnet that can be attached to the iron object
- RS485 communication
- Compatible with LoRaWAN™ Class A
- Frequency hopping spread spectrum technology
- Configuration parameters can be configured through third-party soft platforms
- Data can be read and alerts can be set via SMS text and email (optional)
- Applicable to third-party platforms: Actility / ThingPark, TTN, MyDevices / Cayenne

Application scenario

- NO concentration detection

Dimensions



Main unit housing size chart

Main unit case size: 112 mm x 88.19 mm x 32 mm

Electrical characteristics

Power supply	DC 12V adapter power supply
Working current	50mA (external sensor)

* Specific electrical characteristics will vary depending on the power supply voltage

NO sensor parameters

Power supply	+ 9V-+24 VDC
NO measurement range	0- 2000ppm
NO measurement method	Electrochemical sensors
NO measurement accuracy	<± reading 2 % (@25°C)
NO measurement resolution	< 1 ppm
Response time	< 60s
Service life	In the air > 2 years

Radio frequency characteristics

Frequency range	863MHz-928MHz 470MHz-510MHz
Power output	19 dBm ±1dBm
Receiving sensitivity	-136dBm (LoRa, Spreading Factor=12, Bit Rate = 293bps); -121 dBm (FSK, Frequency deviation=5kHz, Bit Rate=1.2kbps)
Antenna type	Built-in antenna
Communication distance	Up to 10 km (visible linear obstacle-free transmission distance, actual transmission distance depends on the environment)
Data transfer rate	0.3kbps to 50k bps
Modulation system mode	LoRa/FSK (Note: choose one of them)
Supportable LoRaWAN band	EU863-870, US902-928, AU915-928, KR920-923, AS923, CN470-510 (Note: The frequency band is optional and needs to be configured before shipment)

Physical characteristics

Main uni size	L: 112 mm*W: 88.19 mm*H: 32 mm,
Ambient temperature range	- 2 0 °C to 5 5 °C
Main unit weight	About 160g
Ambient humidity range	<90% RH (no condense)
Storage temperature range	- 40 °C ~ 85 °C

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